

WHAT IS CLAIMED IS:

1. A method for controlling stop of a disc in a disc device, comprising:
 - rotating a disc;
 - detecting a rotational velocity of said disc;
 - reducing a rotational velocity of said disc;
 - detecting a rotational velocity reduction ratio of said disc based on the velocity reduction;
 - calculating a brake voltage application time with reference to said detected disc rotational velocity and disc rotational velocity reduction ratio; and
 - braking said disc based on said calculated brake voltage application time.
2. The method as set forth in claim 1, wherein the disc comprises an optical disc and the disc device comprises an optical disc device.
3. The method as set forth in claim 2, wherein the optical disc device comprises an optical disc reproduction device.
4. The method as set forth in claim 1, wherein rotating a disc comprises rotating a disc using a spindle motor.

5. The method as set forth in claim 4, wherein braking said disc based on said calculated brake voltage application time comprises applying a brake voltage to said spindle motor for said calculated brake voltage application time to stop the disc.

6. The method as set forth in claim 1, wherein detecting a rotational velocity of said disc comprises detecting said rotational velocity of said disc based upon information regarding a position of said disc.

7. The method as set forth in claim 1, wherein detecting a rotational velocity reduction ratio of said disc based on the velocity reduction comprises detecting said rotation velocity reduction ratio of said disc based upon a reduced rotational velocity of said disc after the lapse of a predetermined period of time from a start point time of said velocity reduction.

8. The method as set forth in claim 7, wherein said rotational velocity reduction ratio of said disc is detected based upon of a period of time required until a current rotational velocity of said disc is reduced to a predetermined rotational velocity.

9. The method as set forth in claim 1, wherein said brake voltage application time is in proportion to said rotational velocity of said disc and in inverse proportion to said rotational velocity reduction ratio of said disc.

10. Apparatus for controlling stop of a disc in a disc device, comprising:
 - means for rotating a disc;
 - means for detecting a rotational velocity of said disc;
 - means for reducing a rotational velocity of said disc;
 - means for detecting a rotational velocity reduction ratio of said disc based on the velocity reduction;
 - means for calculating a brake voltage application time with reference to said detected disc rotational velocity and disc rotational velocity reduction ratio; and
 - means for braking said disc based on said calculated brake voltage application time.

11. The apparatus as set forth in claim 10, wherein the disc comprises an optical disc and the disc device comprises an optical disc device.

12. The apparatus as set forth in claim 11, wherein the optical disc device comprises an optical disc reproduction device.

13. The apparatus as set forth in claim 10, wherein the means for rotating a disc comprises a spindle motor.

14. The apparatus as set forth in claim 13, wherein means for braking said disc based on said calculated brake voltage application time comprises means for applying a

brake voltage to said spindle motor for said calculated brake voltage application time to stop the disc.

15. The apparatus as set forth in claim 10, wherein the means for detecting a rotational velocity of said disc comprises means for detecting said rotational velocity of said disc based upon information regarding a position of said disc.

16. The apparatus as set forth in claim 10, wherein the means for detecting a rotational velocity reduction ratio of said disc based on the velocity reduction comprises means for detecting said rotation velocity reduction ratio of said disc based upon a reduced rotational velocity of said disc after the lapse of a predetermined period of time from a start point time of said velocity reduction.

17. The apparatus as set forth in claim 16, wherein said rotational velocity reduction ratio of said disc is detected based upon of a period of time required until a current rotational velocity of said disc is reduced to a predetermined rotational velocity.

18. The apparatus as set forth in claim 10, wherein said brake voltage application time is in proportion to said rotational velocity of said disc and in inverse proportion to said rotational velocity reduction ratio of said disc.

19. A disc device, comprising:

a drive unit configured to rotate a disc; and

a servo controller configured to detect a rotational velocity of said disc, provide a signal to said drive unit to reduce a rotational velocity of said disc, detect a rotational velocity reduction ratio of said disc based on the velocity reduction, calculate a brake voltage application time with reference to said detected disc rotational velocity and disc rotational velocity reduction ratio, and provide a signal to said drive unit to brake said disc based on said calculated brake voltage application time.

20. The disc device as set forth in claim 19, wherein the disc comprises an optical disc and the disc device comprises an optical disc device.

21. The disc device as set forth in claim 20, wherein the optical disc device comprises an optical disc reproduction device.

22. The disc device as set forth in claim 19, wherein the drive unit comprises a spindle motor.

23. The disc device as set forth in claim 19, wherein the servo controller detects said rotational velocity of said disc based upon information regarding a position of said disc.

24. The disc device as set forth in claim 19, wherein said servo controller detects said rotation velocity reduction ratio of said disc based upon a reduced rotational velocity of said disc after the lapse of a predetermined period of time from a start point time of said velocity reduction.

25. The disc device as set forth in claim 19, wherein said rotational velocity reduction ratio of said disc is detected based upon of a period of time required until a current rotational velocity of said disc is reduced to a predetermined rotational velocity.

26. The disc device as set forth in claim 19, wherein said brake voltage application time is in proportion to said rotational velocity of said disc and in inverse proportion to said rotational velocity reduction ratio of said disc.